SERVICE MANUAL



MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

ORDERING PARTS

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order forms which are available from our National Parts Depot located at the following address:

SUPERSCOPE NATIONAL PARTS DEPARTMENT 20525 Nordhoff Street Chatsworth, California 91311 Phone: 1-800-423-5108 1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

- 1. Complete address.
- 2. Complete part numbers.
- 3. Complete description of parts.
- 4. Model number for which part is required (indicate MARANTZ).
- 5. Account number (for account customers only).

Direct consumers will be provided with the current retail prive quotation on available parts in order to advise them of the cost of the parts and shipping.

OVERSEAS PARTS ORDERING

Parts may also be ordered from the following overseas addresses:

CANADA	AUSTRALIA	JAPAN
Superscope Canada, Ltd. 3710 Nashua Drive Mississauga Ontario, Canada L4V1M5	Superscope (Australasia) Pty., Ltd. 32 Cross Street (P.O.Box 604) Brookvale 2100 N.S.W. Australia	Marantz Japan, Inc. 3622 Kamitsuruma Sagamihara Shi Kanagawa, Japan
Ontario, Canada E4V 1W3	Addition	3 . •

EUROPE

Superscope Europe, S.A. Avenue Leopold III, 2 7120 Peronnes-Lez-Binche Belgium	Marantz France Rue Louis Armand 9 92600 Asnieres Hauts-de-Seine France	Marantz Audio U.K. Ltd. London Road, 203 Staines Middlesex England	Superscope GmbH Max-Planck-Strass 22 D-6072 Dreieich West Germany
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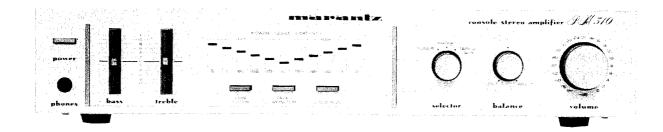
All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.



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MODEL PM-310 STEREOPHONIC AMPLIFIER



1. INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz PM 310 Stereo Console Amplifier. Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed, without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

2. PRE-AMPLIFIER

Signals from the TUNER and AUX terminals are taken to the SELECTOR SWITCH (SS02).

Signals from the PHONO terminals pass through the phono amplifier (Q401) where they are amplified by 35.5 dB and at the same time undergo RIAA equalization, before going to the SELECTOR SWITCH (SS02). After being selected by the SELECTOR SWITCH, the incoming signals are taken to the TAPE MONITOR switch and TAPE OUT terminals.

Signals which enter from the TAPE IN terminals are taken to the TAPE MONITOR SWITCH.

Signals which are selected by the TAPE MONITOR SWITCH are taken to the BALANCE and VOLUME potentiometers, and then enter the main amplifier.

3. MAIN AMPLIFIER

The main amplifier contains an 6 dB/OCT type high pass filter network which can be switched in and out of circuit by means of the LOW FILTER switch.

The main amplifier has a gain of 38.5 dB, and the tone control circuit is included in the feedback circuit to control BASS and TREBLE.

4. TROUBLESHOOTING ANALYSIS

- 1. Excessive line consumption
 - a. Check for shorted Q801.
 - b. Check for shorted transistor Q729, through Q732.
 - c. Check for open Q709, Q710, R725, R726.
- 2. No line consumption or zero bias voltage
 - a. Check line cord, fuse, check for shorted Q709, Q710, R725, R726.
 - b. Check for open rectifiers Q801 or open L001.
- 3. High hum and noise level
 - a. Check filter capacitors C808, C809, C801, C803.
 - b. Check TR Q807, Q808.

5. POWER AMPLIFIER ADJUSTMENT

ADJUSTMENT OF IDLING CURRENT

Connect a DC voltmeter to between emitters Q729 and Q731. Adjust R725 until 11 mV is reached. Likewise, adjust Q730, Q732 and R726.

6. POWER LED METER ADJUSTMENT

Adjust the Speaker Terminal to @1 kHz at rated OUTPUT (12.6V). Adjust the RX07 so that 20W LED lights up. Adjust the RX08 for another channel.

7. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the PM 310 Stereo Console Amplifier. The wattmeter, AC voltmeter, and variable autotransformer may be assembled as a test fixture as shown schematically in Figure 1. The load resistors and AC ammeter may be assembled into a second test fixture as shown in Figure 2.

8. PERFORMANCE VERIFICATION

TEST PROCEDURE

A. TEST EQUIPMENT

Refer to Table 1 for required test equipment.

B. PRELIMINARY PROCEDURES

 Make the test setup shown in Figure 1 with the instrument controls set in the following positions: Line Switch OFF Variable-line switch Variable

Wattmeter Switch ON

Variable Autotransformer 0 V (fully CCW)
Load 8 ohms (0.5 mfd-OFF)

Load 8 ohms (0 Audio Generator 1 kHz Output 5 V range Gain Minimum

Gain Minimum AC Voltmeter 30 V range

2. Make sure that connections between the resistive load and the system terminals of the PM 310 have negligible resistance when compared with the resistance of the load itself. Appreciable resistance in wiring adds to the total load, resulting in inaccurate measurements of output power.

Connect amplifier output to load and connect AC cord to line power. Connect shorting plugs to the Phono input jacks of the PM 310.

Table 1. Test Equipment Required for Servicing

ltem	Manufacturer and Model No.	Use				
Distortion Analyzer	•	Distortion measurements				
Audio Oscillator AC Voltmeter	Sound Technology Model 1700B	Sinewave and squarewave signal source voltage measurements (AC)				
Oscilloscope	Tektronix Model T932	Waveform analysis and trouble shooting and ASO alignment				
Circuit Tester	Philips Model 3232	Trouble shooting				
DC Voltmeter	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)				
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier				
AC Ammeter	Commercial Grade (1 ~ 10 A)	Monitors amplifier output under short circuit condition				
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier				
Variable Autotransformer	Superior Electronic Co., Powerstet Model 116B-10A	Adjusts level of primary power to amplifier				
Shorting Plug	Use phono plug with 600 ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup				
Output Load (8 ohms, ±0.5% 100 W)	Commercial Grade	Provides 8-ohm load for amplifier output termination				
Output Load (4 ohms, ±0.5% 100 W)	Commercial Grade	Provides 4-ohm load for amplifier output termination				
Output Load Capacitor (0.5 mfd)	Mylar	Provides capacitive load for instability checks				
AC Power Control Box	Optional Item. Fabricate in accordance with Figure 1	Monitors and controls primary power for amplifier				
Amplifier Output Load Box	Optional Item. Fabricate in accordance with Figure 2	Provides various amplifier loads and can monitor shorted output				

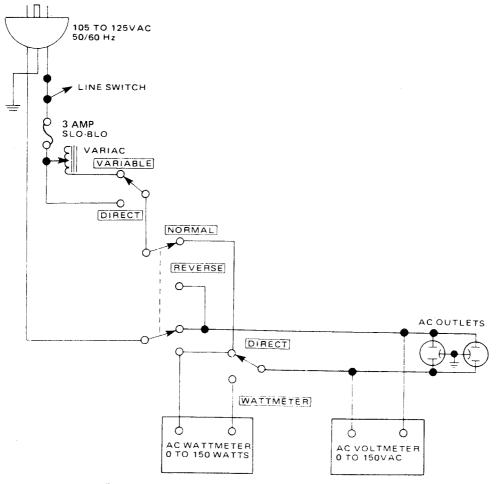
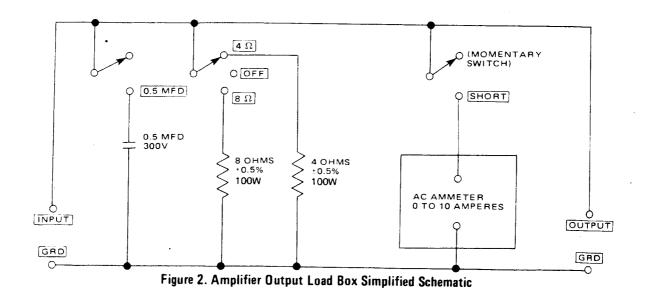


Figure 1. AC Power Control Box Simpligied Schematic



C. TOTAL HUM AND NOISE TEST

1. With shorting plugs connected to the Phono input jacks and an 8 ohm resistive load connected across the speaker system output terminals, connect a distortion analyzer across the load.

NOTE:

If the distortion analyzer does not contain a built-in, voltmeter, an AC VTVM may be substituted.

- Set the distortion analyzer controls for voltge measurements and apply power to the amplifier.
 Set the volume control fully CCW. Set the SELECTOR switch to PHONO.
- 3. If the distortion analyzer indicates more than 2.0 mV refer to the trouble analysis section of this manual.
- 4. Set the volume control fully CW. If the distortion analyzer indicates more than 20 mV, refer to the trouble analysis section of this manual.

D. MAXIMUM POWER OUTPUT

- Connect the audio oscillator to the AUX input. Set audio oscillator frequency to 1 kHz. Set SELECTOR switch to AUX.
- 2. With the distortion analyzer connected across the output load (8-ohm), set the analyzer on the 30 VAC scale.
- Turn the analyzer on and increase the audio oscillator output to 150 mV. The AC VTVM should read 12.6 VAC or more.

E. HARMONIC DISTORTION TEST

- 1. Set the frequency of the audio oscillator and the distortion analyzer to 20 kHz.
- 2. Set the controls of the analyzer for voltage measurement on the 30 volt scale.
- 3. Adjust the audio oscillator output level until the analyzer meter indicates 12.6-VAC.
- 4. Switch the distortion analyzer to Set Level and adjust SENSITIVITY for full scale reading on 0 \sim 1% scale.
- 5. Measure the total harmonic distortion with the analyzer and verify it is less than 0.3%.

NOTE:

Any parasitic oscillation in the amplifier will be displayed on the oscilloscope when capacitance is switched into the load.

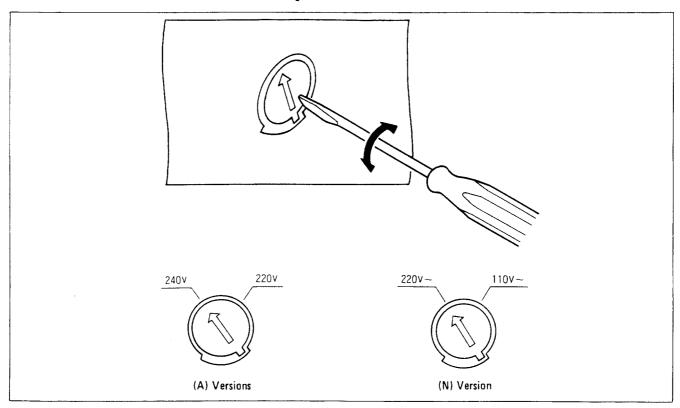
- Switch the distortion analyzer back to SET LEVEL. (Do not readjust sensitivity of analyzer.)
- 7. Change the frequency of the audio oscillator and distortion analyzer to 1 kHz. Adjust audio oscillator output for a full scale reading on the 0 \sim 1% scale.
- 8. Measure the distortion, verifying it is no greater than 0.3%.
- 9. Repeat steps 7 and 8, changing frequency to 20 Hz. Distortion should be no more than 0.3%.
- 10. Check for parasitic oscillation; there should be none.

9. VOLTAGE CONVERSION

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

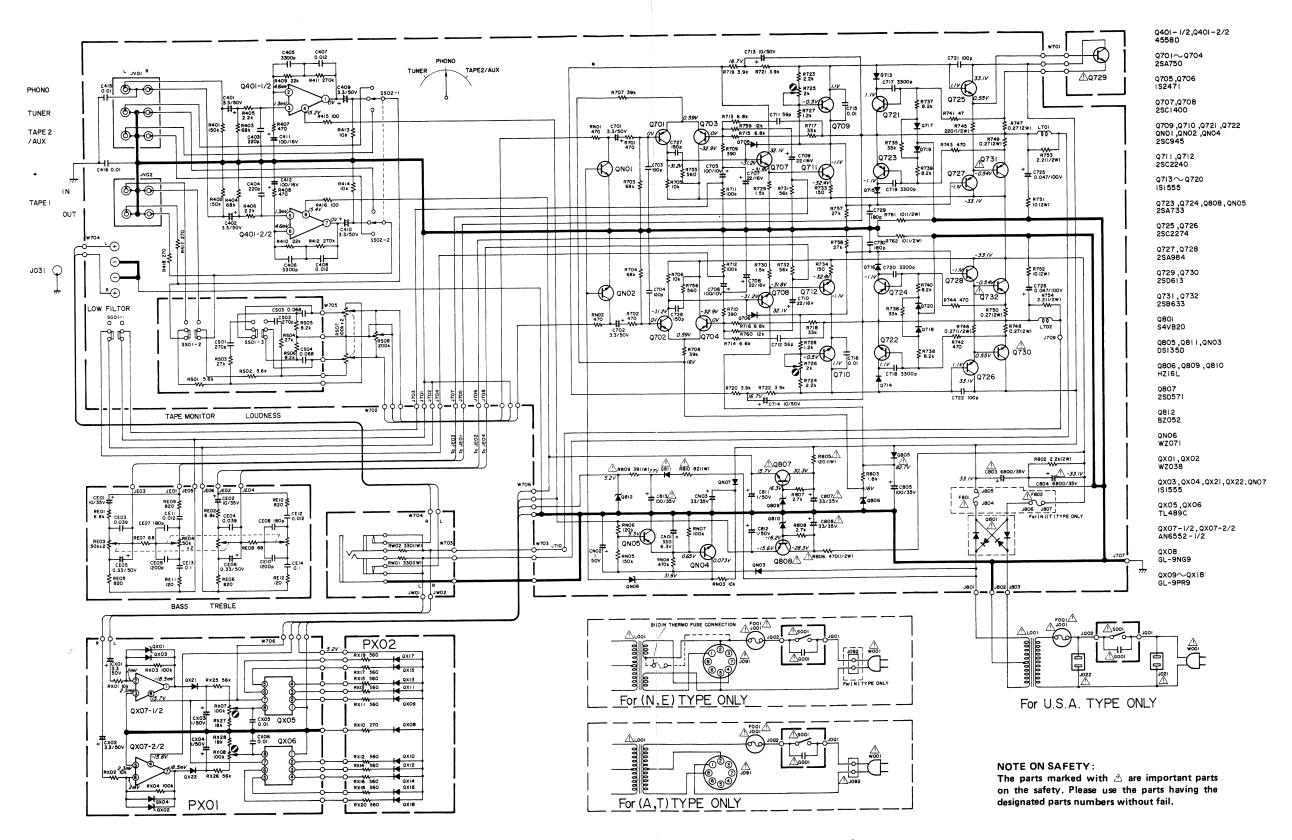
CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE. PLEASE DO NOT DISASSEMBLE THE VOLTAGE SELECTOR ABSOLUTELY.

Voltage Conversion Chart



Note on safety: The parts marked with \triangle are important parts on the safety. Please use the parts having the designated parts number without fail.

10. SCHEMATIC DIAGRAM



Components and wiring are subject to change for modification without notice.



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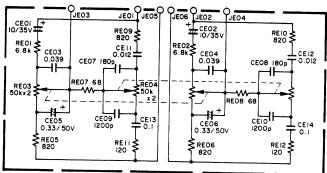
11. DIAGRAM AND COMPONENT LOCATIONS

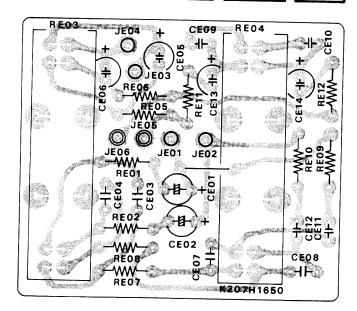
11.2 Power TR. Assembly (P701) Schematic Diagram and Component Locations



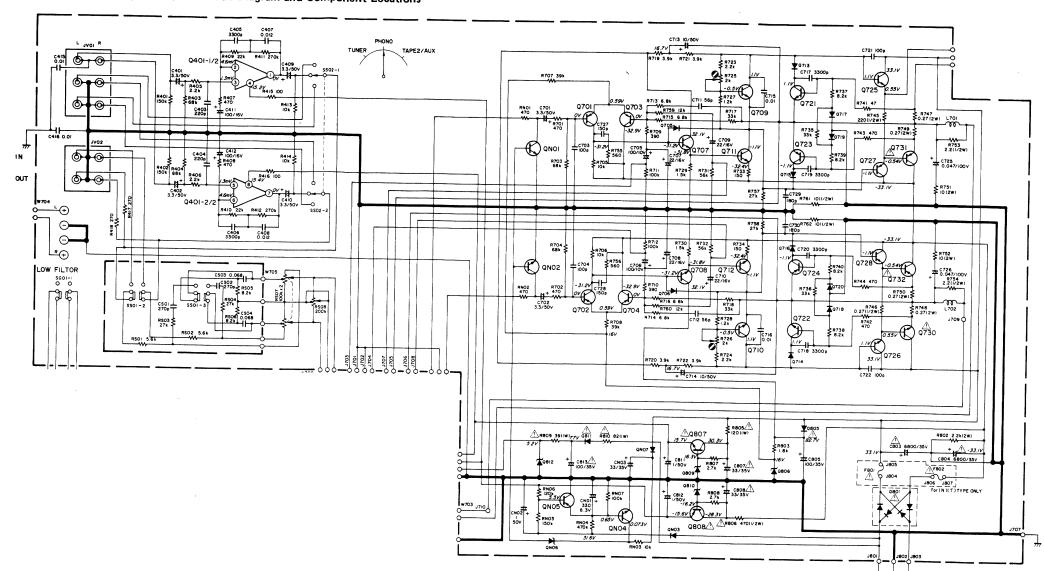


11.3 Tone Control Assembly (PE00) Schematic Diagram and Component Locations

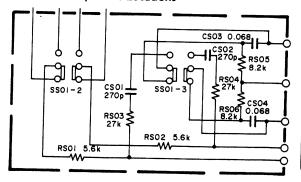


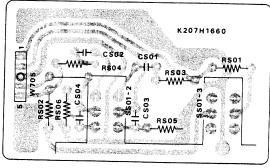


11.1 Main Assembly (P700) Schematic Diagram and Component Locations

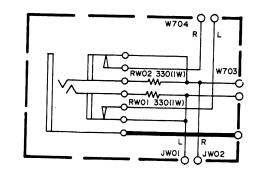


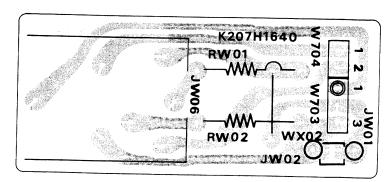
11.4 Switch/VR. Assembly (PS00) Schematic Diagram and Component Locations



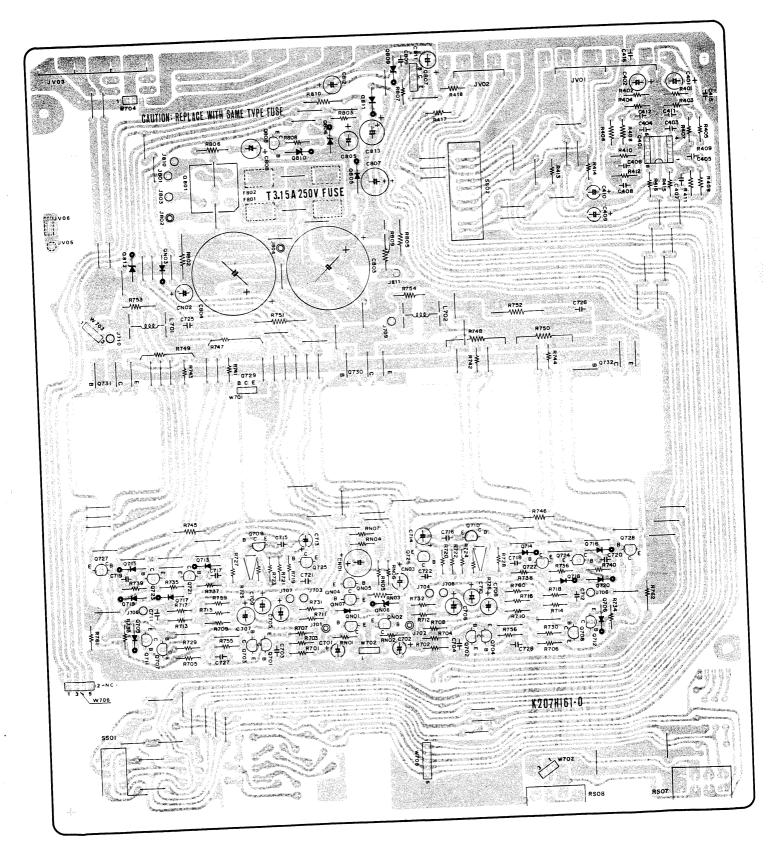


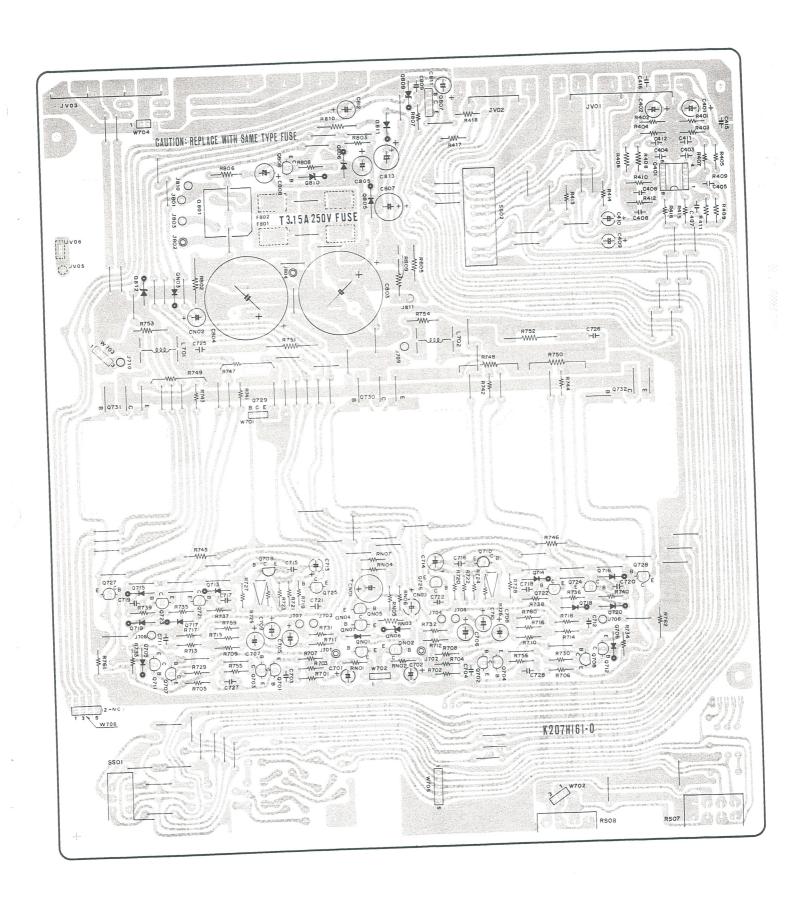
11.5 Phone Assembly (PW00) Schematic Diagram and Component Locations



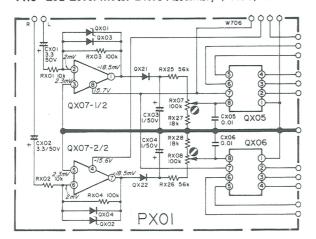


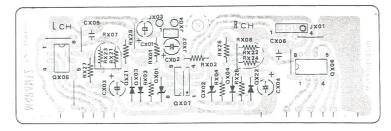




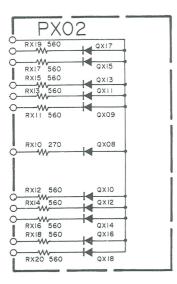


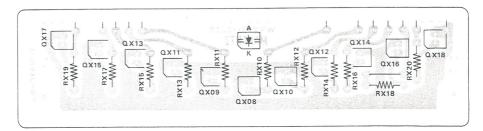
11.6 Led Level Meter Drive Assembly (PX01) Schematic Diagram and Component Locations



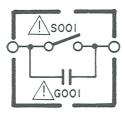


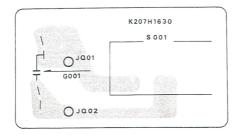
11.7 Led Level Meter Assembly (PX02) Schematic Diagram and Component Locations





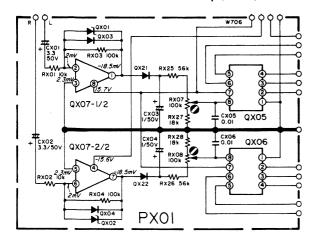
11.8 Power Switch Assembly (P001) Schematic Diagram and Component Locations

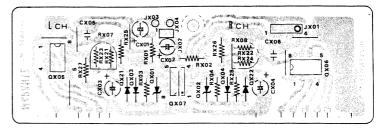




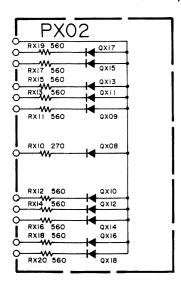


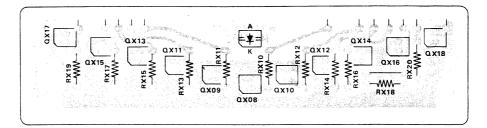
11.6 Led Level Meter Drive Assembly (PX01) Schematic Diagram and Component Locations



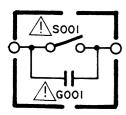


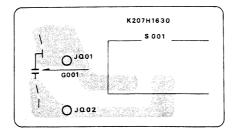
11.7 Led Level Meter Assembly (PX02) Schematic Diagram and Component Locations



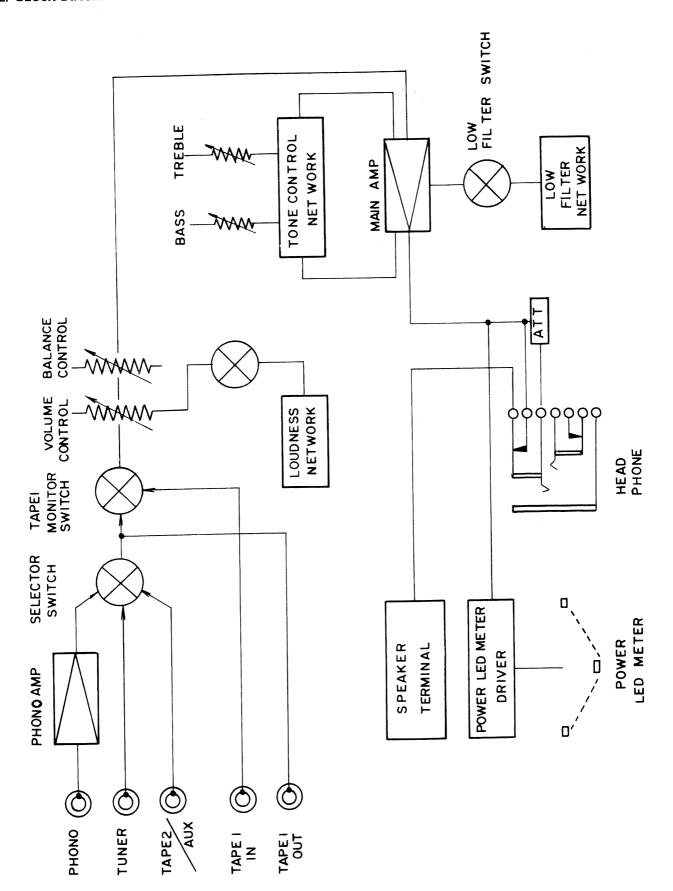


11.8 Power Switch Assembly (P001) Schematic Diagram and Component Locations



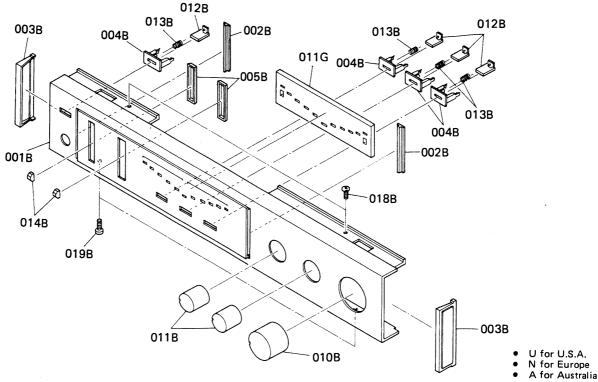


12. BLOCK DIAGRAM

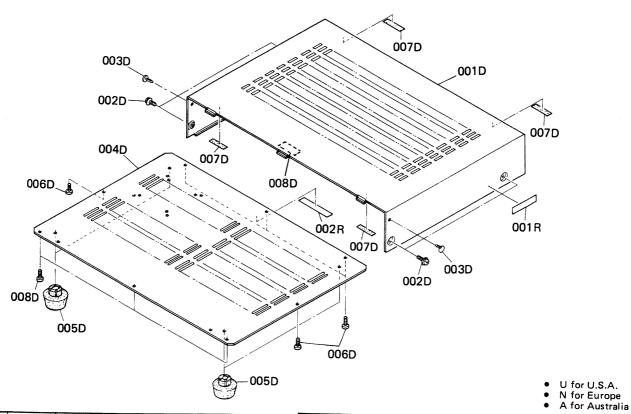


13. EXPLOCED VIEW AND PARTS LIST

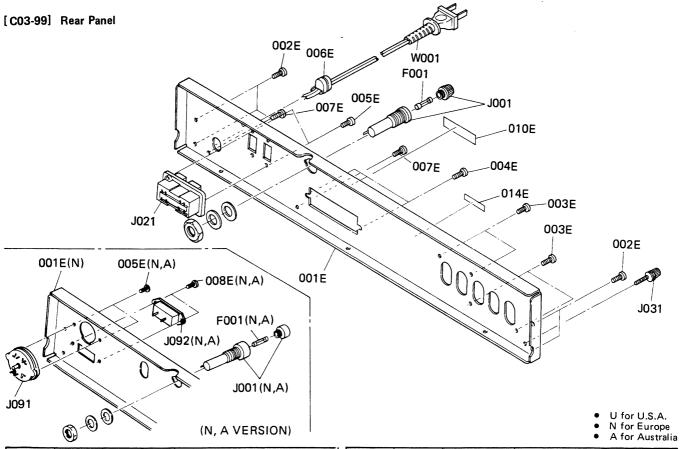
[C01-99] Front Panel



[C02-99] Lid (Top and Bottom Cover)



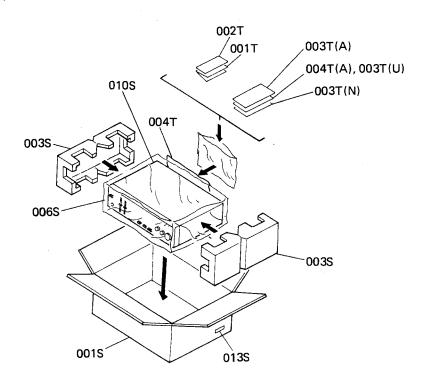
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001E		1		207H160230	Bracket, Rear Panel	△ J001		1	1	YJ08000290	Jack
001E			1	207H160240	Bracket, Rear Panel	△ J001	1			YJ08000310	Jack
001E	1			207H160210	Bracket, Rear Panel	△ J021	1			YJ04000740	Jack, AC Outlet
002E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8	△ J091			1	BY05030040	Voltage Selector (220/240V)
003E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8	△ J091	ĺ	1		BY05060040	Voltage Selector (110/220V)
004E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8	∆ J092		1	1	YB04000590	Plug, Inlet
005E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8	J031	1	1	1	YL03010250	Terminal, Ground
006E	1			1455259030	Bushing	l		l	ĺ		,
007E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8	∆w001			1	ZC02006030	A.C. Power Cord
008E		2	2	51280308U0	B.H. Tapped Screw B3 x 8	∆ W001		1		ZC01805030	A.C. Power Cord
						∆ W001	1	`		ZC01900070	A.C. Power Cord
010E	1	1	1	2112265010	Indicator		1				
014E		1		4581861010	Label	JW06	1	1	1	YJ01001420	Jack, Head Phone
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∆ F001		1	1	FS10063800	Fuse 630mm AT	l					
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017G	014F
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3001	
W705	JV01
017F	SS02
JW06	017F 007F
PW00 W706 W701	
002G PE00 007	016F 001F
001G	003F
004G S	012
003G	

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015F 016F 017F	4 2 2	4 2	4 2	51260308B0 51260408B0 2147056010 208H118020	B.T. Screw B3 x 8 B.T. Screw B4 x 8 Buffer Spacer	△ S001 △ S001	1	1	1	SP01010390 SP01010420	Power Transformer Push Switch, Power Push Switch, Power
001G 002G 003G 004G	1 2 2 4	1 2 2 4		208H160010 51100306A9 51100306A9 51100205A0	Bracket, Front Chassis B.H.M. Screw B3 x 6 B.H.M. Screw B3 x 6 B.H.M. Screw B2 x 5	JW06 S012 SS02	1 1 1	1	1 1 1	YJ01001420 SR00030050 SS04040040	Jack, Head Phone Rotary Switch Slide Switch
016G 017G 018G	1 1 1	1 1 1	1 1 1	208H160030 51280308B0 2276005050	Bracket, Power LED PWB B.H. Tapped Screw B3 x 8 Clamper	W701 W702 W703	1 1 1	1 1 1	1 1 1	YU03220240 YU03120260 YU03300240	Jumper Lead, 3P Jumper Lead, 3P Jumper Lead, 3P
001 L 002 L 003 L 005 L 006 L	1 4 4 1 1	1 4 4 1 1		207H267010 51280308B0 51280308B0 62030039W0 51280308B0	Heatsink B.H. Tapped Screw B3 x 8 B.H. Tapped Screw B3 x 8 Lug B.H. Tapped Screw B3 x 8	W704 W705 W706	1 1 1	1	1 1 1	YU02400240 YU05090260 YU04100260	Jumper Lead, 2P Jumper Lead, 5P Jumper Lead, 4P
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DESIG.	U	N	A	PART NO.	DESCRIPTION	DESI	3.	U	N	Α	PART NO.	DESCRIPTION
0018 0018 0038 0068 0108 0138 0138 0138	1 2 1 1 2	2 1 1 2	1 2 1 1 2 2	207H801020 207H801010 001H809010 9090909040 2918107350 9526019030 9526019060 9526019010 2731821010	Packing Case Packing Case Cushion Polyethylene Sheet Sheet Serial No. Card Serial No. Card Serial No. Card Silicagel	001 001 002 002 003 003 003 004 004	T T T T T T T T T T	1 1 1	1	1	207H851310	Instruction Instruction Instruction Instruction Instruction Circuit Diagram Guarantee Card Guarantee Card Sheet

14. ELECTRICAL PARTS LIST

U for U.S.A.N for EuropeA for Australia

V N A PART NO. DESCRIPTION DESCRIPT	REF.		TY				REF.	C)'T	·				
1 1 1 1 1 1 1 1 1 1	ESIG.	U	N	Α	PART NO.	DESCRIPTION	1	<u> </u>	,		PART NO.	DESCRIPTION		
1 1 1 1 1 1 1 1 1 1		+-						-	ļ	ļ. -				
1 1 1 1 1 1 1 1 1 1						BOOT BOWER OW CIDOLUT	0747				n=43000050	E.,		
1														
1		١.	١.			I -		1	1			•		
1 DK18103850 Caramic 0.01µF C725 1 1 DK18101850 Caramic 0.01µF C726 1 1 DF18473540 Caramic 0.01µF C727 1 1 DF18473540 Film 0.047µF10% Caramic 0.01µF C728 1 1 DF18473540 Film 0.047µF10% Caramic 0.01µF C727 1 1 DF18473540 Caramic 0.01µF C728 1 1 DF18473540 Caramic 0.01µF C728 1 1 DF181370 Caramic 100pF ±10% Film 0.047µF10% Caramic 0.01µF DF181370 Caramic 100pF ±10% Film 0.047µF10% Film 0.047µF10% Caramic 100pF ±10% Film 0.047µF10%	P001	1		1		(-	C719	1	1	1	DF17332350	Film 3300pF ±20%		
1 DK18103880 Ceramic 0.01μF C725 1 1 DK16101580 Ceramic 0.01μF C726 1 1 DF16473540 Film 0.047μF±10% C728 1 1 DF16473540 Film 0.047μF±10% Film 0.0		1	1	1	ZZ207H1630	P.W. Board Assembly	C720	1	1	1	DF17332350	Film 3300pF ±20%		
1 DK18103880 Ceramic 0.01μF C725 1 1 DK16101580 Ceramic 0.01μF C726 1 1 DF16473540 Film 0.047μF±10%			ŀ				C721	1	1	1	DK16101550			
1 DK18103880 Ceramic 0.01µF C726 1 1 DF16473540 Film 0.047µF±10% Ceramic 0.01µF C727 1 1 DD15151370 Ceramic 150pF ±5% C728 DD1010390 C728 DD1010390 C728 DD1010390 C728 DD1010390 Ceramic 150pF ±5% C728 DD1010390 C728 DD101510370 Ceramic 150pF ±5% C728 DD1010390 C728 DD101510370 Ceramic 150pF ±5% C728 DD101510370 Ceramic 150pF ±5% C728 DD1010390 DD1010390 C728 DD1010390				}		P001-CAPACITOR		1	1		1			
1	G001	-	!	1	DK 18103850			1	1					
1 1 SP01010330 Pont-SWITCH Pont-S	G001		1	١.										
1 1 SP01010300 SP01010420 Push Switch, Power Push Switch, Power AC8004 1 1 EB88803520 Elect 6800µF 35V C805 1 1 1 EB88803520 Elect 6800µF 35V C805 1 1 EB88803520 Elect 6800µF 35V C805 1 1 EA33603530 Elect 33µF 35V C806 1 1 EA33603530 Elect 33µF 35V C807 Elect 24µF 50V Elect 33µF 35V Elect 33µF 3		1 4	'		l .				1			1		
1 1 SP01010390 Push Switch, Power	G001	'			DK 18103830	Ceramic 0.01µF		1	1	1				
1 1 SP01010390 SP01010420 Push Switch, Power							C728	1	1	1	DD15151370	Ceramic 150pF ±5%		
1 1 1 1 1 1 1 22207H81010 2 2210 H81010 2 2 2 2 2 2 2 2 2						· •				ļ				
1 1 1 1 1 2 2 2 2 2	S001		1	1	SP01010390	Push Switch, Power	△ C803	1	1	1	EB68803520	Elect 6800µF 35V		
1 1 1 1 1 1 1 1 1 1	S001	1	1		SP01010420	Push Switch, Power	∆ C804	1	1	1	EB68803520			
1 1 1 1 1 2 2 2 2 2					·	,	1	1	1	1				
1 1 YK207H1610 P.W. Board, Main Amp P.W. Board Assembly P.W. Board Assembl		1	1			P700-MAIN AMP CIRCUIT		1	1					
1 1 YK207H610 P.W. Board, Main Amp C812 1 1 1 EA10505030 Elect 1μF 50V E		1		1				4	1			•		
1	0700		_	_	VKOOZULOLO	· •			1	i i				
1	P700	1	1	1			1	4	1					
1		1		1		1	C812	1	1	1	EA10505030	Elect 1μF 50V		
1		1	1		ZZ207H8610	P.W. Board Assembly	i					1		
1							CN01	1	1	1	EA33700630	Elect 330#F 63V		
1						P700-CAPACITORS		1	1					
1 1 EA33505030 Elect 3.3μF 50V Ceramic 220pF ±10%	C401	1	1	1	E 4 3 3 5 0 5 0 3 0	;				1	,			
1 1 DK16221300 Ceramic 220pF ±10% Film 3300pF ±10% R401 1 1 DF16323300 Film 3300pF ±10% R402 1 1 GD05154140 150kΩ 150kΩ 150kΩ 1 1 DF16123300 Film 0.012μF±10% R403 1 1 GD05683140 G8kΩ			1	1			CN03	1	1	1	EA33003530	⊏iect 33μF 35V		
1 1 DF16323300 Film 3300pF ±10% R401 1 1 1 GD05154140 150kΩ 1 1 DF16323300 Film 3300pF ±10% R402 1 1 1 GD05154140 150kΩ S8kΩ S8k	C402		1	1			1							
1	C403	1 .	1		l .									
1 1 1 DF16332300 Film 3300pF ±10% R401 1 1 1 DF16323300 Film 3300pF ±10% R402 1 1 1 DF16123300 Film 0.012 μ F±10% R402 1 1 1 GD05683140 68kΩ 1 1 1 DF16123300 Film 0.012 μ F±10% R403 1 1 1 GD05683140 68kΩ 1 1 1 EA33505030 Elect 3.3 μ F 50V R405 1 1 GD05683140 68kΩ 1 1 EA33505030 Elect 100 μ F 16V R405 1 1 GD056222140 2.2kΩ 2.2kΩ 1 1 1 EA10701630 Elect 100 μ F 16V R405 1 1 GD05471140 470Ω 22kΩ 1 1 DK18103300 Ceramic 0.01 μ F R408 1 1 GD05471140 270 μ Ω 1	C404	1	1	1	DK16221300		1					(All Resistors are ±5%		
1 1 DF16332300 Film 3300pF $\pm 10\%$ R402 1 1 1 GD05154140 150kΩ 150kΩ 1 1 DF16123300 Film 0.012μ $\pm 10\%$ R402 1 1 1 GD05683140 68kΩ 68kΩ 1 1 1 EA33505030 Elect 3.3μF 50V R404 1 1 1 GD05683140 68kΩ R405 1 1 1 GD05683140 68kΩ R406 1 1 1 GD0522140 2.2kΩ R406 1 1 1 GD05222140 2.2kΩ R408 1 1 GD05223140 2.2kΩ R408 R408 1 1 GD05223140 2.2kΩ R408 R40	C405	1	1	1	DF16332300	Film 3300pF ±10%	1							
1 1 DF16123300 Film 0.012μ ± 10% R403 1 1 GD05154140 150kΩ 1 1 DF16123300 Film 0.012μ ± 10% R403 1 1 GD05683140 68kΩ 1 1 EA33506030 Elect 3.3μ F 50V R404 1 1 GD05683140 68kΩ 1 1 EA10701630 Elect 100µF 16V R406 1 1 GD05222140 2.2kΩ 1 1 EA10701630 Elect 100µF 16V R406 1 1 GD05471140 470Ω 1 1 DK18103300 Ceramic 0.01µF R409 1 1 GD05223140 22kΩ 1 1 DK18103300 Ceramic 0.01µF R410 1 1 GD05223140 22kΩ 1 1 DK18101300 Ceramic 0.01µF R410 1 1 GD05223140 22kΩ 1	C406	1	1	1			R401	1	1	1	GD05154140			
1 1 1 DF16123300 Film 0.012μF±10% R403 1 1 1 GD05683140 68kΩ 1 1 1 EA33505030 Elect 3.3μF 50V R406 1 1 1 GD05683140 68kΩ 1 1 1 EA10701630 Elect 100μF 16V R406 1 1 1 GD05222140 2.2kΩ 1 1 1 EA10701630 Elect 100μF 16V R407 1 1 1 GD05471140 470Ω 1 1 1 DK18103300 Ceramic 0.01μF +80% -20% R408 1 1 1 GD0522140 2.2kΩ 1 1 1 EA33505030 Ceramic 0.01μF +80% -20% R409 1 1 1 GD05223140 22kΩ 1 1 1 EA33505030 Elect 3.3μF R410 1 1 1 GD05223140 22kΩ 1 1 1 EA33505030 Elect 3.3μF R411 1 1 GD05274140 270kΩ 1 1 1 EA10701030 Elect 3.3μF R411 1 1 GD05274140 270kΩ 1 1 1 EA10701030 Elect 1000μF 10V R413 1 1 1 GD05103140 10kΩ 1 1 1 EA22601630 Elect 22μF 16V R415 1 1 1 GD05103140 10kΩ 1 1 1 EA22601630 Elect 22μF 16V R416 1 1 1 GD05271140 270Ω 1 1 1 EA22601630 Elect 22μF 16V	C407	1 '	1	1			1	1	1					
1 1 EA33505030 Elect 3.3μF 50V R405 1 1 1 GD05683140 68kΩ 2.2kΩ R405 1 1 1 GD05222140 2.2kΩ R406 1 1 1 GD05222140 2.2kΩ R406 1 1 1 GD05222140 2.2kΩ R406 1 1 1 GD05471140 470Ω R408 1 1 1 GD05471140 470Ω GD0522140 2.2kΩ R407 1 1 GD05471140 470Ω GD0522140 2.2kΩ R407 1 1 GD05471140 470Ω GD0522140 2.2kΩ GD05223140 GD052		1 .			l .		1	1				1		
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1	C410	1	1	1	EA33505030	Elect 3.3μF 50V	R405	1	1	1	GD05222140	2.2kΩ		
1 1 EA10701630 Elect 100μF 16V R408 1 1 GD05471140 470Ω 470Ω 1 1 1 DK18103300 Ceramic 0.01μF +80% -20% R409 1 1 GD05223140 22kΩ 22kΩ 1 1 EA33505030 Elect 3.3μF R411 1 1 GD05223140 270kΩ 1 1 DK16101300 Ceramic 100pF R412 1 1 GD05274140 270kΩ 1 1 EA10701030 Elect 100μF 10V R413 1 1 GD05103140 10kΩ 1 1 EA10701030 Elect 1000μF 10V R415 1 1 GD05103140 100Ω R416 1 1 EA22601630 Elect 22μF 16V R418 1 1 GD05271140 270Ω 1 1 EA22601630 Elect 22μF 16V R418 1 1 GD05471140 470Ω 1 1 EA22601630 Elect 22μF 16V R701 1 1 GD05471140 470Ω 1 1 EA22601630 Elect 22μF 16V R701 1 1 GD05471140 470Ω 1 1 EA22601630 Elect 22μF 16V R701 1 1 GD05471140 470Ω 1 1 EA22601630 Elect 22μF 16V R701 1 1 GD05471140 470Ω 1 1 EA22601630 Elect 22μF 16V R701 1 1 GD05471140 470Ω 1 1 EA2601630 Elect 22μF 16V R701 1 1 GD05683140 68kΩ 1 1 EA10605030 Elect 10μF 50V R704 1 1 GD05683140 68kΩ Elect 10μF 50V R705 1 1 GD05593140 39kΩ R708 1 1 GD05593140 39kΩ GD054020000000000000000000000000000000000		1				į į		1	[
1	C411	1	1	1	EA10701630	Elect 100uF 16V	1		1	1 1				
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1				1		· · · · · · · · · · · · · · · · · · ·		1	1					
1 1 1 EA33505030 Elect 3.3μF R411 1 1 1 GD05274140 270kΩ Ceramic 100pF $\pm 10\%$ R412 1 1 1 GD05103140 10kΩ R415 1 1 GG05101140 100Ω R416 1 GG05101140 100Ω R416 1 I GG05101140 100Ω R416 I I GG05101140 100Ω R416 I I GG05101140 100Ω R416 I I I I I GG05101140 100Ω R416 I I I I I GG05101140 100Ω R416 I I I I I I GG05101140 100Ω R416 I	C415	1 !		1						1	GD05223140	22 kΩ		
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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C701	1	1	1	EA33505030	Elect 3.3μF								
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C702	1	1	1	EA33505030	Elect 3.3µF	R411	1	1	1	GD05274140	27040		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	C703	1	1	1	DK16101300	Ceramic 100pF			1	1 1				
1 1 1 EA10701030 Elect 1000μ F 10V R414 1 1 1 1000 1000 1 1 1 EA22601630 Elect 1000μ F 10V R415 1 1 1000 1000 1 1 1 EA22601630 Elect 1000 1000 1000 1000 1000 1 1 1 EA22601630 Elect 10000 10000 10000 10000 10000 10000	C704	1 -	1									1		
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C706	1	1	1	EA10/01030	Elect 1000μF 10V	R415	1	1	1	GG05101140	100Ω		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1	1				R416	1	1	1	GG05101140	100Ω		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C707	1	1	1	EA22601630	Elect 22µF 16V	R417	1	1 1					
1 1 1 EA22601630 Elect 22μF 16V R701 1 1 1 GD05471140 470Ω A70Ω A70Ω Blect 22μF 16V R702 1 1 1 GD05471140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD05471140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0547140 $\frac{1}{1}$ GD0	2708	1	1	1	EA22601630	Elect 22µF 16V		1				E		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C709						1	١.		. 1				
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C711		1			1 · · · · · · · · · · · · · · · · · · ·								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	C712		1	1 1		l '	R703	1	1	1	GD05683140	68kΩ		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	C713	1	1	1	EA10605030	Elect 10μF 50V	R704	1	1	1				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2714	1	1	1	EA10605030	Elect 10µF 50V			1 I					
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R710 1 1 GD05391140 390Ω R711 1 1 GD05104140 100kΩ		1					R709	1	1	1	GD05391140			
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					C D 0 5 C C C C 1 4 0	6.8kΩ		R802	1	1.	1	1	GA05222020	2.2kΩ
R713	- 1	1	1	1	GD05682140	6.8kΩ		R803	- 1	- 1	- 1	1	GD05182140	1.8kΩ
R714	- 1	1	1	1	GD05682140	6.8kΩ	l	 AR805	1	- 1		1	GA05121010	120Ω 1W
R715	1	1	1	1	GD05682140	6.8kΩ	- 1	 A R806	ĺ		- i	1	GG05471120	470Ω ½W
R716		1	1	1	GD05682140	33 kΩ	ŀ	R807				i	GD05272140	2.7kΩ
R717		1	1	1	GD05333140			R808	1		- 1	1	GD05272140	2.7kΩ
R718		1	1	1	GD05333140	33 kΩ	i	△R809		- 1	- 1	1	GA05820030	82Ω 3W
R719		1	1	1	GD05392140	3.9kΩ		1	- 1		- 1	- 1	GA05320000	39Ω 1W
R720		1	1	1	GD05392140	3.9kΩ			'	1	'	1	G A05350010	3011
R721		1	1	1	GD05392140	3.9kΩ	1		١.	.			CD05471140	470Ω
R722		1	1	1	GD05392140	3.9kΩ		RN01	- 1			1	GD05471140	470Ω 470Ω
1								RN02	1			1	GD05471140	1
R723	1	1	1	1	GD05222140	2.2kΩ	1	RN03		- 1	1	1	GD05103140	10kΩ
R724	-	1	1	1	GD05222140	2.2kΩ		RN04	- 1	- 1	- 1	1	GD05474140	470kΩ
R725		1	1	1	RD02020180	Trimming (B) 2kΩ		RN05	1	- 1	1	1	GD05154140	150kΩ
R726	- 1	1	1	1	RD02020180	Trimming (B) 2kΩ	i	RN06	1	1	1	1	GD05124140	120kΩ
R727	1	1	1	1	GD05122140	1.2kΩ		RN07	1	1	1	1	GD05104140	100kΩ
R728	- 1	1	1	1	GD05122140	1.2kΩ	1					- 1		name of the country of the
R729		1	1	1	GD05152140	1.5kΩ		1				İ		P700-SEMICONDUCTORS
R730		1	1	;	GD05152140	1.5kΩ		Q401	'	1	1	1	HC10003090	IC 4558D
		- 1		ł	GD05152140	56kΩ		Q701	1	1	1	1	HT107502C0	Transistor 2SA750 E or F
R731		1	1	1		56kΩ	1	0702		- 1	1	1	HT107502C0	Transistor 2SA750 E or F
R732		1	1	1	GD05563140	30042		0703	- 1		1	1	HT107502C0	Transistor 2SA750 E or F
1		ار			000000000	150Ω	I	0704		il	1	1	HT107502C0	Transistor 2SA750 E or F
R733		1	1	1	GD05151140	150Ω	ļ	Q705	- 1	1	1	i	HD20003210	Diode IS2471
R734		1	1	1	GD05151140			Q706	- 1	i	1	1	HD20003210	Diode 182471
R735		1	1	1	GD05333140	33kΩ	Ì	0707		1	i	1	HT314001E0	Transistor 2SC1400 (E)
R736	-	1	1	1	GD05333140	33kΩ	-	Q708	1	1	1	i	HT314001E0	Transistor 2SC1400 (E)
R737	ı	1	1	1	GD05822140	8.2kΩ	1	0709	- 1	1	1	1	HT309452B0	Transistor 2SC945 P or Q
R738	.	1	1	1	GD05822140	8.2kΩ	1	1 4709		1	١.	'	11130345250	
R739	1	1	1	1	GD05822140	8.2kΩ		0710		1	1	1	HT309452B0	Transistor 2SC945 P or Q
R740		1	1	1	GD05822140	8.2kΩ		0710		- 1	- 1	1	HT322402A0	Transistor 2SC2240 GR or BL
R741		1	1	1	GD05471140	470Ω	Į.	Q711		1	1		HT322402A0	Transistor 2SC2240 GR or BL
R742	! [1	1	1	GD05471140	470Ω		Q712		1	1	1		Diode IS2473
			-				- 1	Q713		1	1	1	HD20001210	Diode IS2473
R743	.	1	1	1	GD05471140	470Ω	1	0714	- 1	1	1	1	HD20001210	
R744		1	1	1	GD05471140	470Ω	1	Q715		1	1	1	HD200Q1210	Diode IS2473
R745	- 1	1	1	1	GG05221120	220Ω	1/2W	Q716	- 1	1	1	1	HD20001210	Diode IS2473
R746		1	1		GG05221120	220Ω	1/2W	Q717	- 1	1	1	1	HD20001210	Diode IS2473
R747	- 1	1	1	1	GB05272020	0.27Ω	2W	Q718	3	1	1	1	HD20001210	Diode IS2473
R748	1		1	1	GB05272020	0.27Ω	2W	Q719)	1	1	1	HD20001210	Diode IS2473
	- 1	1	1		GB05272020	0.27Ω	2W			İ				
R749	- t	1				0.27Ω	2W .	Q720)	1	1	1	HD20001210	Diode IS2473
R750	- 1	1	1		1	10Ω	2W	0721	-	1	1	1	HT309452B0	Transistor 2SC945 P or Q
R751	- 1	1	1	t	1	10Ω	2W	Q722	2	1	1	1	HT309452B0	Transistor 2SC945 P or Q
R752	۱ :	1	1	1	GA05100020	1032		Q723	3	1	1	1	HT107332A0	Transistor 2SC733 P or Q
			١.	١.	0005000100	2.2	1/2W	0724		1	1	1	HT107332A0	Transistor 2SC733 P or Q
R753		1				2.2	½W	Q725		1	1	1	HT322742B0	Transistor 2SC2274 E or F
R754		1		- 1		560Ω	/2**	0.726	- 1	1		1	HT322742B0	Transistor 2SC2274 E or F
R755		1	1	1				0.727	- 1	1	1	1	HT109842B0	Transistor 2SA984 E or F
R756		1	1			560Ω		0728	- 1	1	1	1	HT109842B0	Transistor 2SA984 E or F
R757		1	1			27kΩ	1	∆ Q729	- 1	1		1	HT406133B0	Transistor 2SD613 DE or F
R758	3	1	1	1		27kΩ		14472	1	'		'	11140010000	
R759)	1		1		12kΩ		1 0 720	.	,	4	1	HT406133B0	Transistor 2SD613 DE or F
R760		1	1	1	1	12kΩ	.,,,,	<u></u>		;	1	•	HT206333B0	Transistor 2SB633 DE or F
R761		1		1	_	10Ω	1/2W	∆ Q731		1	1	1	HT206333B0	Transistor 2SB633 DE or F
R762	2	1	1	1	GG05100120	10Ω	14W	∆ Q732		1	1	1		Diode S4VB20
1							ļ	∆ Q801		1	1	1	HD20008290	The state of the s
			1	1.			ł	△ 0805		1	1	1	HD20015030	1
1							. !	Q806		1	1	1	HD30014010	Zener HZ16L
	Ì						į	∆ Q8 07		1	1	1	HT405712B0	Transistor 2SD571
							ļ	∆ Q808		1	1	1	HT107332A0	Transistor 2SA733 P or Q
							1	Q809	1	1	1	1	HD30014010	Zener HZ16L
	ı						ŀ	Q810)	1	1	1	HD30014010	Zener HZ16L
								Q81:	,	1	1	1	HD30042090	Zener BZ052
									-					
								,						,
			1		1									<u> </u>

•	Ν	tor	Europe
•	Α	for	Australia

REF. Desig. U N A QN01 1 1 1 1 HT30948 QN02 1 1 1 1 HT30948 QN03 1 1 1 HT20019 QN04 1 1 1 HT30948 QN05 1 1 1 HT1073 QN06 1 1 1 LL23908 L701 1 1 1 LL23908 L702 1 1 1 LL23908 AF801 1 FS10318 AF802 1 FS10318 RS07 1 1 1 RM0104 RS08 1 1 1 RK0204 SS02 1 1 1 SS04040 JV01 1 1 1 YT0206 JV02 1 1 1 YT0206 JV03 1 1 1 YT0304 P701 1 1 1 YK2078 C729 1 1 1 HT4061	Transistor 2SC945 P or Q
QN02	Transistor 2SC945 P or Q
QN04 1 1 1 HT30949 QN05 1 1 1 HT30949 QN06 1 1 1 1 HT30922 L701 1 1 1 LL23909 L702 1 1 1 LL23909 AF801 1 FS10319 AF802 1 FS10319 RS07 1 1 RM0104 RS08 1 1 1 RK0204 SS02 1 1 1 SS04040 JV01 1 1 1 YT0206 JV02 1 1 1 YT0204 JV03 1 1 1 YT0304 P701 1 1 1 YK2078 1 1 1 1 YK2078	5280 32A0 32A0 32A0 32A0 32B0 32B0 32B0 32B0 32B0 32B0 32B0 32B
QN05	Zener WZ071 P700-MISCELLANEOUS 5120 Choke Coil 5800 Fuse 5800 Variable Resistor 100kΩx2 Variable Resistor 200kΩ Slide Switch Terminal Terminal Terminal Terminal P701-POWER TR. CIRCUITBOARD
L701 1 1 1 LL23908 L702 1 1 1 1 LL23908 AF801 1 FS10318 AF802 1 FS10318 RS07 1 1 1 RM0104 RS08 1 1 1 RK0204 SS02 1 1 1 SS04040 JV01 1 1 1 YT0206 JV02 1 1 1 YT0304 P701 1 1 1 YT0304	P700-MISCELLANEOUS Choke Coil Choke Coil E800 Fuse Fuse Variable Resistor 100kΩ×2 Variable Resistor 200kΩ Slide Switch Terminal Terminal Terminal Terminal P701-POWER TR. CIRCUIT BOARD
AF801	Fuse Fuse 40400 Variable Resistor 100kΩx2 40110 Variable Resistor 200kΩ 0040 Slide Switch Terminal Terminal Terminal Terminal P701-POWER TR. CIRCUIT BOARD
RS07 1 1 1 RM0104 RS08 1 1 1 RK0204 SS02 1 1 1 SS04040 JV01 1 1 1 YT0206 JV02 1 1 1 YT0204 JV03 1 1 1 YT0304 P701 1 1 1 YK2078 1 1 1 1 ZZ207F	Fuse 40400 Variable Resistor 100kΩ×2 40110 Variable Resistor 200kΩ 50130 Terminal 7erminal 7erminal 7erminal 7erminal 7erminal 7erminal 7erminal 7erminal
RS08 1 1 1 RK0204 SS02 1 1 1 SS04040 JV01 1 1 1 YT0206 JV02 1 1 1 YT0204 JV03 1 1 1 YT0304 P701 1 1 1 YK2078 1 1 1 ZZ2078	Variable Resistor 200kΩ Note: Side Switch Terminal Terminal Terminal Terminal Terminal Terminal Terminal
JV01 1 1 1 YT0206 JV02 1 1 1 1 YT0204 JV03 1 1 1 1 YT0304 P701 1 1 1 YK2078 1 1 1 1 ZZ2078	Terminal Terminal Terminal Terminal Terminal P701-POWER TR. CIRCUIT
JV02 1 1 1 YT0204 JV03 1 1 1 YT0304 P701 1 1 1 YK207F	40260 Terminal 40190 Terminal P701-POWER TR. CIRCUIT BOARD
1 1 1 ZZ207H	BOARD
Q729 1 1 1 HT4061	
	P701-TRANSISTOR Transistor 2SD613 DE or F
PE00 1 1 1 1 YK207 1 1 1 1 ZZ207H	
CE01 1 1 1 EA1066 CE02 1 1 EA1066 CE03 1 1 DF1633 CE04 1 1 1 EA3344 CE05 1 1 1 EA3344 CE06 1 1 EA3344 CE07 1 1 DK161 CE08 1 1 DK161 CE09 1 1 DF161 CE10 1 1 DF161	03530 Elect $10μF$ $35V$ 93300 Film $0.039μF$ $\pm 10%$ 93300 Elect $0.33μF$ $\pm 50V$ 05030 Elect $0.33μF$ $50V$ 05030 Elect $0.33μF$ $50V$ 05130 Ceramic $180pF$ $\pm 10%$ 181300 Ceramic $180pF$ $\pm 10%$ $1800pF$ $1200pF$ $1200pF$ $1200pF$
CE13 1 1 1 EA104	23300 Film $0.012\mu\text{F} \pm 10\%$ 23300 Film $0.012\mu\text{F} \pm 10\%$ 105030 Elect $0.1\mu\text{F} 50\text{V}$ 105030 Elect $0.1\mu\text{F} 50\text{V}$

DEC			~	1		
REF. DESIG.	U	Ω'T N	A	1	PART NO.	DESCRIPTION
						PE00-RESISTORS (All Resistors are ±5% and %W)
RE01 RE02 RE03 RE04 RE05 RE06 RE07 RE08 RE09 RE10	1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1		GD05682140 GD05682140 RS05030350 RS05030350 GD05821140 GD05821140 GD05680140 GD05821140 GD05821140	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
RE11 RE12	1 1	1		1	GD05121140 GD05121140	120Ω 120Ω
PS00	1	1	' 1	1	YK207H1660 ZZ207H1660	PS00-SW/VR ASS'Y CIRCUIT BOARD P.W. Board, SW/VR Ass'y P.W. Board Assembly
CS01 CS02 CS03 CS04	1 1 1 1	1		1 1 1 1	DK16271300 DK16271300 DF16683300 DF16683300	PS00-CAPACITORS Ceramic 270pF ±10% Ceramic 270pF ±10% Film 0.068μF ±10% Fil
						PS00-RESISTORS (All Resistors are ±5% and %W)
RS01 RS02 RS03 RS04 RS05 RS06	1 1 1 1 1		1 1 1 1 1	1 1 1 1 1	GD05472140 GD05472140 GD05273140 GD05273140 GD05822140 GD05822140	4.7kΩ 4.7kΩ 27k Ω 27k Ω 8.2kΩ 8.2kΩ
\$\$01	1		1	1	SP020301100	PS00-SWITCH Push Switch
PW00	1		- 1	1	YK207H1640 ZZ207H1640	PW00-PHONE ASS'Y CIRCUIT BOARD P.W. Board, Phone Ass'y P.W. Board Assembly
RW01	1	- 1		1	GA05331010 GA05331010	$\begin{array}{ccc} \text{Resistor} & 330\Omega & \pm 5\% \text{ 1W} \\ \text{Resistor} & 330\Omega & \pm 5\% \text{ 1W} \end{array}$
JW06	1	ı	1	1	YJ01001420	Head Phone Jack
PX01		1	1	1	WN207H3210 ZZ207H3210	PX01-LED LEVEL METER DRIVE CIRCUIT BOARD P.W. Board, LED Level Meter Drive P.W. Board Assembly
CX01 CX02 CX03 CX04 CX05 CX06		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1	EA33505030 EA33505030 EA10505030 EA10505030 DF16103300 DF16103300	PX01-CAPACITORS Elect 3.3μ F $50V$ Elect 3.3μ F $50V$ Elect 1μ F $50V$ Elect 1μ F $50V$ Film 0.01μ F $\pm 10\%$ Film 0.01μ F $\pm 10\%$

- U for U.S.A. N for Europe A for Australia

RI	EF.	Q	π\	,		PA	ART No.			DE	SCR	IPTION	
	SIG.	U	N	Α	-			-	DEGG				
									(All	1-RE	tors	rons are ±5%	
١,	3X01	1	1	1		GD	05103140		an	d 1/4W)	10		
1 .	RX02	1	1	- 1	1 0	GD	05103140	1				kΩ 0kΩ	1
1	RX03	1	ι	ı			05104140	1				0kΩ	
	RX04		- 1				05104140	-	Tri	mmin	20	kΩ	
•	RX07 RX08	1	- }	1	1	RA	02030060	1	Tri	mmin	g 20	kΩ	1
	RX25	1 1			1	G۵	05563140					ikΩ ikΩ	
	RX26	- 1	. 1	٠.	1	GE	005563140 005183140	1				skΩ	1
	RX27	1	٠,	1	1	GL	005183140				18	škΩ	
1	RX28		1	1	1	GL	,051001.10	1				CANDUCTORS	-
		-		1						(01-Si ener		CONDUCTORS 7Z038	
1	σx0.		1	1	1	H	D30076090 D30076090			ener		2038	1
	OX0	- 1	1	1	1	HI	D20001210	,		iode		2473	1
	OX0		1	1	1	Н	D20001210)	1	iode		S2473	
	QX0		1	1	1		C10008370		10			L489C L489C	١
-	OX0		1	1	1	Н	C10008370 C10019020	j	10			N6552	
	OX0	- 1	1	1	1 1	H	D20001210	, ם	1 '	olode	- 13	S2473	
	QX2	- 1	1	1	1	H	D2000121	0	0	olode	i:	\$2473	
-	Q X 2	2	•	'	,	'			_		ALC:	SELLANFOUS	
-						1 YJ07000750			PX01:MISCELLANEOUS Jack				
- 1	1X0	1	1	1	1	Y	101000190	,	1				
-									F	X02-	LED	LEVEL METER	
										CIRCU	narc Oarc	BOARD J,LED Level Meter	
-	1		1	1	1	V	VN207H32 ZZ207H322	20 20	1	P.W. B	oard	Assembly	
			1	1	'	1	220711022			P¥02.	RES	SISTORS	
Ì										(All R	esist	tors are ±5%	
- 1										and 3	4VV)	270Ω	
ı	RX		1	1	- 1	! '	GD052711 GD055611	4U 40	1			560Ω	
	RX		1	1 :	' '	1	GD055611	40				560Ω	
	RX		1	- 1		1	GD055611	40	1			560Ω	
		(14	1	- 1	1	1	GD055611	40				560Ω 560Ω	
	•	(15		1	٠.	1	GD055611 GD055611	40 40				560Ω	
		(16	1 .	٠,	٠.	1	GD055611	40				560Ω	
		<17 <18	-		1	1	GD055611	40)			560Ω 560Ω	
		x19		٠,	1	1	GD055611	140	ΟÌ	l		560Ω 560Ω	
		X20		1	1	1	GD055611	14(
	1											MICONDUCTORS GL-9NG9	•
	1 0	X08	3	1	1	1	HI100063	20		L.E.		GL-9PR9	
		XOS	•	1	1	1	HI100073 HI100073	20	, 1	L.E.		GL-9PR9	
		X10		1	1	1	HI100073	320)	L.E.	D.	GL-9PR9	
		X1 X1:		1	1	1	HI100073	320)	L.E.	D.	GL-9PR9 GL-9PR9	
	_	X1		1	1	1	H1100073	320)	L.E.		GL-9PR9	
	\ c	X1	4	1	1	1	HI100073	32(32/	J	L.E.		GL-9PR9	
		X1	- 1	1	1	1	HI100073	،∠ر 32(0	L.E	D.	GL-9PR9	
		1X1 1X1		1	1	1	H110007	320	0	L.E	.D.	GL-9PR9	
		1X I 1X1		1	1	1	HI10007	32	0	L.E	.D.	GL-9PR9	
	`					1				1			
	1												
	L					<u></u>							

(W01-99) (T01-99) (X01-00)	Assembly and Wiring Adjustment Correction

15. TECHNICAL SPECIFICATIONS

ic. Permitted of Earliest
AUDIO SECTION
POWER OUTPUT, DIN, 8 OHM, PER CHANNEL
Frequency Response
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Phono (MM)
Input Terminals 47 k obms
Phono: Input Impedance 47 k ohms Input Capacitance 250 pF Overload Margin 33 dB Input sensitivity 2.8 mV Aux: Input Impedance 25 k ohms Input Sensitivity 150 mV
Phono Equivalent Input Noise
Channel Balance (0 to -40 dB/40 Hz ~ 16 kHz)
Phono Less than 2.0 dB Aux Less than 2.0 dB
Output Voltage, 1 kHz Tape Out
Output Impedance, 1 kHz
Tape Out
GENERAL
Power Requirements
Power Consumption at Rated Output, both Channels Driven 105W
Idling Power
Transistors
Diodes
Dimensions 416 mm
Panel Width
Panel Height
Weight
Unit Alone

Specifications and appearance are subject to change for modification without notice.